REMARKS

In light of the above amendatory matter and remarks to follow, reconsideration and allowance of this application are respectfully solicited.

In the Office Action under reply, U.S. Patent 5,838,383 (Chimoto) was relied upon once again to reject all the claims. Claims 1-2, 7-9, 13-14 and 19-21 were rejected as being obvious in view of Chimoto. Chimoto was combined with U.S. Patent 6,469,742 (Trovato) to reject claims 10-12 and 22-25. Chimoto was combined with U.S. Patent 6,198,479 (Humpleman) to reject claims 6 and 18. No claims are allowed.

These rejections of the claims were set out in the previous Office Action of December 1, 2008 and are repeated here.

The Examiner is thanked for his response to Applicants' arguments (see page 2 of the Office Action under reply). Applicants argued, among other issues, that Chimoto does not disclose or suggest "higher layer commands" as recited in, for example, Applicants' independent claims 1 and 13. The Examiner disagreed. While acknowledging that Chimoto does not describe the type of command or instructions that are sent to the various processing blocks in his receiver as being high layer commands, the Examiner contends that "it is notoriously well known in the art to use high layer commands for the purpose of allowing flexibility in the system by obviating the need for specialized drivers to communicate with different components." Furthermore, the Examiner refers to particular portions of Chimoto's specification as alleged teachings of "a command sent by the host to a processing unit ... and it's free of those functionality instructions that control individual functions of the hardware processing units that controls individual processing blocks." Applicants' representative respectfully disagrees. There is no teaching of high layer command or instructions at the portions of Chimoto particularly cited

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by the Examiner. While Chimoto's CPU 313 sends parameters, it is submitted that such parameters are merely specific instructions that are unique to the processing block to which those parameters are sent. When a processing block is changed, the CPU must be re-programmed to send parameters unique to the new block (see col. 10, lines 54-63 of Chimoto). This demonstrates that Chimoto does not teach the use of high layer commands. Rather, Chimoto here teaches away from using high layer commands.

In Applicants' claimed invention, such as recited in claim 1, signal processing blocks include (a) hardware drivers that cooperate with hardware of particular structure, and (b) processing units for activated the hardware driver in that signal processing block to control the cooperating hardware. High layer commands are sent by the host processing block to the processing unit in a signal processing block whereat the high layer commands are interpreted to produce driver control instructions for the hardware driver in that signal processing block to operate the cooperating hardware. As a result of Applicants' invention, the host may send generic commands, rather than specific commands tailored to the specific driver included in the respective signal processing block, as heretofore required by the prior art, namely, Chimoto. See, for example, page 4, lines 8-13; page 5, lines 20-24; page 12, line 21 to page 13, line 20; page 17, line 22 to page 18, line 1; page 23, lines 6-18; and page 24, lines 14-23 of the instant specification.

Thus, the high layer command need not specify the particular functionality that is performed by the hardware driver in the signal processing block, but, rather, merely need instruct that block to operate. Consequently, signal processing blocks may be easily replaced without requiring large-scale rewriting of the programming and software of the host processing block that issues the high layer commands.

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To further clarify what is meant by a high layer command, as described in Applicants' specification, claims 1 and 13 are amended to explain that which clearly was implicit, namely, the high layer command is a general-purpose script type command that is interpreted by the processing unit in the digital signal processing block to which said high layer command is supplied to perform the function generally described by the high layer command; and, moreover, the high layer command is not on a real time basis

As was discussed in Applicants' replies to previous Office Actions, Chimoto describes a multimedia television receiver in which a CPU 313 communicates with several modules over a bus 302 to supply prescribed parameters to those various modules. Once these parameters are set in the modules, the modules can receive and process broadcast satellite signals (see column 9, lines 27-33 of Chimoto). There is no suggestion, however, that the "prescribed parameters" are the high layer commands recited by Applicants' claims 1 and 13. Indeed, it would appear that, by sending "prescribed parameters" to the modules, Chimoto's CPU sends low layer, detailed instructions, rather than high layer commands, to the modules. Moreover, these "prescribed parameters" appear to be hardware dependent, that is, the specific parameters that are supplied from Chimoto's CPU clearly will change with the module to which those parameters are sent.

In contending that Chimoto discloses "high layer commands," the Examiner argues that it is well known in the art to use high layer commands. In reply, Applicants' representative asserts that the Examiner has not cited any reference, nor presented any evidence, that the high layer commands recited by Applicants' claims are "well known" <u>in the environment</u> recited in, for example, Applicants' claims 1 and 13, to carry out the functions recited in these claims. Nevertheless, as mentioned above, the characteristics of the claimed "high layer command" are

recited in claims 1 and 13. Accordingly, by this amendment, claims 1 and 13 recite features not found in the cited prior art and, therefore, are in condition for allowance.

Claim 1 recites, inter alia,

said high layer command being independent of the particular structure of the hardware coupled to said digital processing block, said high layer command being free of those functionality instructions that control individual ones of said predetermined functions of the hardware driver in said respective digital signal processing block, said high layer command being a general-purpose script type command that is interpreted by the processing unit in the digital signal processing block to which said high layer command is supplied to perform the function generally described by said high layer command, and said high layer command not being on a real time basis, said high layer command instructing the processing unit in said digital signal processing block to activate said hardware driver of said digital signal processing block to perform the predetermined function assigned to said respective digital signal processing block; and

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wherein said processing unit of each of said digital signal processing blocks interprets and executes said high layer command to produce hardware driver control instructions for said hardware driver to operate said cooperating hardware of particular structure coupled to said digital signal processing block in accordance with said high layer command."

Support for the amendment made to claim 1 is found at, for example, Page 11, line 17 to page 11, line 17, page 14, lines 10-17, page 27, line 22 to page 28, line 14, page 28, line 19 to page 29, line 3 and page 29, line 14 to page 30, line 11 of Applicants' specification. It is respectfully submitted, the "prescribed parameters" supplied by Chimoto's CPU 313 are not the "high layer commands" outputted by Applicants' claimed host processing block. Chimoto is silent with respect to the features that characterize the "high layer command," as recited in claim 1. Moreover, and contrary to the Examiner's argument, no evidence has been cited to support the assertion that the "high layer command," that is characterized in claim 1 is "notoriously well known in the art."

In addition to the foregoing argument, Applicants' representative repeats that Chimoto's modules, which the Examiner interprets as corresponding to Applicants' claimed digital signal processing blocks, do not interpret and execute a high layer command coming from CPU 313. Chimoto's modules, once set with the prescribed parameters, have no need to interpret commands from CPU 313 because those modules operate in accordance with those parameters that have been set without further commands from the CPU. In the event one of Chimoto's modules is changed to change its function, CPU 313 must send specific parameters (which are quite different from Applicants' "high layer commands") to the changed module to enable that new module to perform its function. Chimoto does not send "a general-purpose script type command that is interpreted by the processing unit in the digital signal processing block to which said high layer command is supplied to perform the function generally described by said high layer command." Contrary to Chimoto, Applicants' claims 1 and 13 recite a "processing unit for activating said hardware driver to control hardware of particular structure;" in which "said high layer command instruct[s] the processing unit in said digital signal processing block to activate said hardware driver of said digital signal processing block to perform the predetermined function assigned to said respective digital signal processing block;" ... "wherein said processing unit of each of said digital signal processing blocks interprets and executes said high layer command to produce hardware driver control instructions for said hardware driver to operate said hardware of particular structure coupled to said digital signal processing block in accordance with said high layer command." In Chimoto, the driver control parameters must be sent by CPU 313 to each driver; whereas in Applicants' claimed invention, driver control parameters are produced by the signal processing blocks themselves -- no rewriting or

reprogramming of the host processor is needed if a driver is changed, as is the case with

Chimoto.

It is not clear if the Examiner is relying on Official Notice that it would be obvious to

modify Chimoto by having his CPU 313 send high layer commands to each driver; and to

modify each driver to include a processing unit that, in turn, interprets high layer commands to

supply specific driver parameters to a driver unit. While the Examiner asserts it is "notorious

well known in the art to use high layer commands..." he does not specifically rely upon Official

Notice. Hence, it is not clear to Applicants' representative whether or not Official Notice is

invoked. Nevertheless, as argued previously, Applicants' representative respectfully submits

that reliance on Official Notice is improper. It has been held that there is reversible error when

the Examiner relies upon official notice for the particular features claimed which are urged to be

novel in the combination claimed and to therein contribute new or improved results. *Ex parte

Nouel*, 158 USPQ 237 (Bd of Pat. App. and Int. 1967). See also, 37 CFR 1.104(c)(3):

> (3) In rejecting claims the examiner may rely upon admissions by the applicant, or the
> patent owner in a reexamination proceeding, as to any matter affecting patentability and,
> insofar as rejections in applications are concerned, may also rely upon facts within his or
> her knowledge pursuant to paragraph (d)(2) of this section.
>
> (d) Citation of references.
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> ***
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> (2) When a rejection in an application is based on facts within the personal knowledge of
> an employee of the Office, the data shall be as specific as possible, and the reference
> must be supported, when called for by the applicant, by the affidavit of such employee,
> and such affidavit shall be subject to contradiction or explanation by the affidavits of the
> applicant and other persons.

If the Examiner is, in fact, relying upon Official Notice, Applicants' representative requests the

Examiner provide support for such reliance; and if the Examiner is relying upon facts within his

personal knowledge, an affidavit to that effect is requested.

In view of this significant difference between Applicants' claim 1 and the teachings of

Chimoto, the withdrawal of the rejection of claim 1 as being obvious is respectfully solicited.

Claim 13 is directed to the method performed by the apparatus of claim 1. The method of

claim 13 includes the steps of:

> "outputting and transferring to the processing unit in a respective digital signal
> processing block, via said common bus, said high layer command, said high layer
> command being independent of the particular structure of the hardware coupled to said
> digital processing block, said high layer command being free of those functionality
> instructions that activate the hardware driver in said respective digital signal
> processing block to control the coupled hardware of particular structure, and said high
> layer command being a general-purpose script type command that is interpreted by the
> processing unit in the digital signal processing block to which said high layer
> command is supplied to perform the function generally described by said high layer
> command, and said high layer command not being on a real time basis, said high layer
> command instructing the processing unit in said digital signal processing block to
> activate said hardware driver of said digital signal processing block to perform the
> predetermined function assigned to said respective digital signal processing block; and
> ***
>
> wherein said processing unit of each of said digital signal processing blocks interprets
> and executes said high layer command to produce driver control instructions for said
> hardware driver to operate said hardware of particular structure coupled to said digital
> signal processing block in accordance with said high layer command, and outputs said
> high speed stream of data."

As mentioned above in connection with claim 1, Chimoto fails to disclose these features.

Accordingly, claim 13 is patentably distinct over Chimoto for the very same reasons discussed

with respect to claim 1.

Trovato was relied upon for describing the installation of software to control modules

that might be added or substituted in a system. But, Trovato is notably silent with respect to

Applicants' claimed high layer commands and the functions performed by those high layer commands.

Humpleman was relied upon for describing a command embedded in a script of hypertext; and the hypertext is interpreted by a browser. But, Humpleman is not suggestive of Applicants' claimed high layer commands and the functions performed by those high layer commands.

Accordingly, even if Chimoto is supplemented by Trovato and/or Humpleman, the resultant combination still would not enable one of ordinary skill in the art to make and use Applicants' claimed invention.

Since dependent claims 2, 6-12, 14 and 18-25 all depend from a respective one of Applicants' independent claims, and thus include all of the recitations found in their respective independent claim, it follows that these dependent claims are patentably distinct over Chimoto, taken alone or in combination with Trovato or Humpleman for those reasons discussed above.

For the foregoing reasons, the withdrawal of the rejections of all the claims and an indication of the allowance of the present application are respectfully solicited.

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited references, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Applicants respectfully submit that claims 1-2, 6-14, and 18-25 are in allowable form; and this application is in condition for allowance. Early notice to this effect is respectfully requested.

Please charge any additional fees that may be needed, and credit any overpayment, to our

Deposit Account No. 50-0320.

                              Respectfully submitted,

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